5

10

15

25

leukemic plasma cells in multiple myeloma: Alternate usage of RHAMM and CD44. Blood 87: 1891-1899.

Turley, E.A., Belch, A.R., Poppema,, S., and Pilarski, L.M. (1993). Expression and function of a receptor for hyaluronan-mediated motility (RHAMM) on normal and malignant B lymphocytes. Blood 81: 446-453.

Pilarski, L.M. Miszta, H., and Turley, E.A. (1993). Regulation expression of a receptor for hyaluronan-mediated motility RHAMM) on human thymocytes and T cells. J. Immunol. 150: 4292-4302

S., K.B., McCoshen, J., Kredentser, J., and Turley, E. (1994). The Regulation of Sperm Motility by a Novel Hyaluronan Receptor. Fertility and Sterility 61: 935-940.

Turley, E.A., Sossain, M.Z., Sorokan, T., Jordan, L.M., and Nagy, J.I. (1994) Astrocyte and microglial motility in vitro is functionally dependent on the hyaluronan receptor RHAMM. Glia 12: 68-80)

The cells that populate the blood are all derived from multipotential (or pluripotential) stem cells present in bone marrow. Multipotential stem cells continually proliferate and renew themselves, but also give rise to common progenitor cells. Once committed, progenitor cells differentiate into immature precursor cells of the various blood cell lineages which, following further differentiation stages, eventually give rise to mature functional blood cells, such as erythrocytes, monocytes, lymphocytes, and polymorphonuclear cells. (Golub, E.S., Green, D.R. (1991) Immunology A Synthesis, 2:205; Kuby, J. (1997) Immunology, 3:50; Roitt, I., Brostoff, J., Male, D. (1996) Immunology, 4:2.1). Terminally differentiated blood cells generally lose their ability to proliferate - indeed mammalian erythrocytes and platelets contain no nuclei - and thus have finite lifetimes. Granulocytes may exist only for a matter of hours, whereas human erythrocytes remain in circulation for over 100 days. Although some lymphocytes have life-spans measured in years, most are short lived (for example, 3 days - 3 weeks). Therefore, to maintain steady-state numbers of particular blood cell types, there must be a continual production of these from the bone marrow. This process is known as haemopoiesis (haematopoiesis) or the haemopoietic process. While much remains to be learned, it is clear that many steps in the haemopoietic process (haemopoiesis) are controlled by certain cytokines (for example, GM-CSF and G-SCF and erythropoietin (EPO)), also known as haemopoietic growth factors, and by microenvironmental factors